$\overline{}/0590$
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/041,615

DATE: 02/04/2003 P.6
TIME: 13:52:26

Input Set : A:\cura_533_us_list.txt
Output Set: N:\CRF4\02042003\J041615.raw

```
 2 <110> APPLICANT: Casman, Stacie J
 3        Edinger, Shlomit R
 4        Ellerman, Karen
 5        Smithson, Glennda
 6        Kekuda, Ramesh
 7        Padigaru, Muralidhara
 9 <120> TITLE OF INVENTION: Novel GPCR-Like Proteins and Nucleic Acids Encoding Same
11 <130> FILE REFERENCE: 21402-233-061
13 <140> CURRENT APPLICATION NUMBER: 10/041,615
14 <141> CURRENT FILING DATE: 2003-01-29
16 <150> PRIOR APPLICATION NUMBER: 60/259,552
17 <151> PRIOR FILING DATE: 2001-01-03
19 <150> PRIOR APPLICATION NUMBER: 60/260,544
20 <151> PRIOR FILING DATE: 2001-01-09
22 <150> PRIOR APPLICATION NUMBER: 60/277,405
23 <151> PRIOR FILING DATE: 2001-03-20
25 <160> NUMBER OF SEQ ID NOS: 174
27 <170> SOFTWARE: CuraSeqList version 0.1
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 947
31 <212> TYPE: DNA
32 <213> ORGANISM: Homo sapiens
34 <220> FEATURE:
35 <221> NAME/KEY: CDS
36 <222> LOCATION: (17)..(931)
38 <400> SEQUENCE: 1
39 tgaaacgaat aactct atg gtg act gaa ttc att ttt ctg ggt ctc tct gat   52
40                    Met Val Thr Glu Phe Ile Phe Leu Gly Leu Ser Asp
41                     1               5                  10
43 tct cag gaa ctc cag acc ttc cta ttt atg ttg ttt ttt gta ttc tat  100
44 Ser Gln Glu Leu Gln Thr Phe Leu Phe Met Leu Phe Phe Val Phe Tyr
45           15                  20                  25
47 gga gga atc gtg ttt gga aac ctt ctt att gtc ata aca gtg gta tct  148
48 Gly Gly Ile Val Phe Gly Asn Leu Leu Ile Val Ile Thr Val Val Ser
49         30                  35                  40
51 gac tcc cac ctt cac tct ccc atg tac ttc ctg cta gcc aac ctc tca  196
52 Asp Ser His Leu His Ser Pro Met Tyr Phe Leu Leu Ala Asn Leu Ser
53 45                  50                  55                  60
55 ctc att gat ctg tct ctg tct tca gtc aca gcc ccc aag atg att act  244
56 Leu Ile Asp Leu Ser Leu Ser Ser Val Thr Ala Pro Lys Met Ile Thr
57                 65                  70                  75
59 gac ttt ttc agc cag cgc aaa gtc atc tct ttc aag ggc tgc ctt gtt  292
60 Asp Phe Phe Ser Gln Arg Lys Val Ile Ser Phe Lys Gly Cys Leu Val
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RAW SEQUENCE LISTING
PATENT APPLICATION: **US/10/041,615**

DATE: 02/04/2003
TIME: 13:52:26

Input Set : **A:\cura_533_us_list.txt**
Output Set: **N:\CRF4\02042003\J041615.raw**

```
61              80               85               90
63 cag ata ttt ctc ctt cac ttc ttt ggt ggg agt gag atg gtg atc ctc   340
64 Gln Ile Phe Leu Leu His Phe Phe Gly Gly Ser Glu Met Val Ile Leu
65          95              100              105
67 ata gcc atg ggc ttt gac aga tat ata gca ata tgc aag ccc cta cac   388
68 Ile Ala Met Gly Phe Asp Arg Tyr Ile Ala Ile Cys Lys Pro Leu His
69      110              115              120
71 tac act aca att atg tgt ggc aac gca tgt gtc ggc att atg gct gtc   436
72 Tyr Thr Thr Ile Met Cys Gly Asn Ala Cys Val Gly Ile Met Ala Val
73 125              130              135              140
75 aca tgg gga att ggc ttt ctc cat tcg gtg agc cag ttg gcg ttt gcc   484
76 Thr Trp Gly Ile Gly Phe Leu His Ser Val Ser Gln Leu Ala Phe Ala
77              145              150              155
79 gtg cac tta ctc ttc tgt ggt ccc aat gag gtc gat agt ttt tat tgt   532
80 Val His Leu Leu Phe Cys Gly Pro Asn Glu Val Asp Ser Phe Tyr Cys
81          160              165              170
83 gac ctt cct agg gta atc aaa ctt gcc tgt aca gat acc tac agg cta   580
84 Asp Leu Pro Arg Val Ile Lys Leu Ala Cys Thr Asp Thr Tyr Arg Leu
85          175              180              185
87 gat att atg gtc att gct aac agt ggt gtg ctc act gtg tgt tct ttt   628
88 Asp Ile Met Val Ile Ala Asn Ser Gly Val Leu Thr Val Cys Ser Phe
89      190              195              200
91 gtt ctt cta atc atc tca tac act atc atc cta atg acc atc cag cat   676
92 Val Leu Leu Ile Ile Ser Tyr Thr Ile Ile Leu Met Thr Ile Gln His
93 205              210              215              220
95 cgc cct tta gat aag tcg tcc aaa gct ctg tcc act ttg act gct cac   724
96 Arg Pro Leu Asp Lys Ser Ser Lys Ala Leu Ser Thr Leu Thr Ala His
97              225              230              235
99 att aca gta gtt ctt ttg ttc ttt gga cca tgt gtc ttt att tat gcc   772
100 Ile Thr Val Val Leu Leu Phe Phe Gly Pro Cys Val Phe Ile Tyr Ala
101          240              245              250
103 tgg cca ttc ccc atc aag tca tta gat aaa ttc ctt gct gta ttt tat   820
104 Trp Pro Phe Pro Ile Lys Ser Leu Asp Lys Phe Leu Ala Val Phe Tyr
105          255              260              265
107 tct gtg atc acc cct ctc ttg aac cca att ata tac aca ctg agg aac   868
108 Ser Val Ile Thr Pro Leu Leu Asn Pro Ile Ile Tyr Thr Leu Arg Asn
109      270              275              280
111 aaa gac atg aag acg gca ata aga cag ctg aga aaa tgg gat gca cat   916
112 Lys Asp Met Lys Thr Ala Ile Arg Gln Leu Arg Lys Trp Asp Ala His
113 285              290              295              300
115 tct agt gta aag ttt tagatcttat ataact                            947
116 Ser Ser Val Lys Phe
117              305
119 <210> SEQ ID NO: 2
120 <211> LENGTH: 305
121 <212> TYPE: PRT
122 <213> ORGANISM: Homo sapiens
124 <400> SEQUENCE: 2
125 Met Val Thr Glu Phe Ile Phe Leu Gly Leu Ser Asp Ser Gln Glu Leu
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RAW SEQUENCE LISTING   DATE: 02/04/2003
PATENT APPLICATION: **US/10/041,615**   TIME: 13:52:26

Input Set : **A:\cura_533_us_list.txt**
Output Set: **N:\CRF4\02042003\J041615.raw**

```
126   1                5                  10                    15
128 Gln Thr Phe Leu Phe Met Leu Phe Phe Val Phe Tyr Gly Gly Ile Val
129             20                  25                  30
131 Phe Gly Asn Leu Leu Ile Val Ile Thr Val Val Ser Asp Ser His Leu
132          35                  40                  45
134 His Ser Pro Met Tyr Phe Leu Leu Ala Asn Leu Ser Leu Ile Asp Leu
135       50                  55                  60
137 Ser Leu Ser Ser Val Thr Ala Pro Lys Met Ile Thr Asp Phe Phe Ser
138 65                  70           .        75                    80
140 Gln Arg Lys Val Ile Ser Phe Lys Gly Cys Leu Val Gln Ile Phe Leu
141                85                  90                    95
143 Leu His Phe Phe Gly Gly Ser Glu Met Val Ile Leu Ile Ala Met Gly
144             100                 105                 110
146 Phe Asp Arg Tyr Ile Ala Ile Cys Lys Pro Leu His Tyr Thr Thr Ile
147          115                 120                 125
149 Met Cys Gly Asn Ala Cys Val Gly Ile Met Ala Val Thr Trp Gly Ile
150       130                 135                 140
152 Gly Phe Leu His Ser Val Ser Gln Leu Ala Phe Ala Val His Leu Leu
153 145                 150                 155                   160
155 Phe Cys Gly Pro Asn Glu Val Asp Ser Phe Tyr Cys Asp Leu Pro Arg
156                165                 170                 175
158 Val Ile Lys Leu Ala Cys Thr Asp Thr Tyr Arg Leu Asp Ile Met Val
159             180                 185                 190
161 Ile Ala Asn Ser Gly Val Leu Thr Val Cys Ser Phe Val Leu Leu Ile
162          195                 200                 205
164 Ile Ser Tyr Thr Ile Ile Leu Met Thr Ile Gln His Arg Pro Leu Asp
165       210                 215                 220
167 Lys Ser Ser Lys Ala Leu Ser Thr Leu Thr Ala His Ile Thr Val Val
168 225                 230                 235                   240
170 Leu Leu Phe Phe Gly Pro Cys Val Phe Ile Tyr Ala Trp Pro Phe Pro
171                245                 250                 255
173 Ile Lys Ser Leu Asp Lys Phe Leu Ala Val Phe Tyr Ser Val Ile Thr
174          260                 265                 270
176 Pro Leu Leu Asn Pro Ile Ile Tyr Thr Leu Arg Asn Lys Asp Met Lys
177          275                 280                 285
179 Thr Ala Ile Arg Gln Leu Arg Lys Trp Asp Ala His Ser Ser Val Lys
180       290                 295                 300
182 Phe
183 305
185 <210> SEQ ID NO: 3
186 <211> LENGTH: 948
187 <212> TYPE: DNA
188 <213> ORGANISM: Homo sapiens
190 <220> FEATURE:
191 <221> NAME/KEY: CDS
192 <222> LOCATION: (4)..(945)
194 <400> SEQUENCE: 3
195 taa atg aga cct aat aac agc att aca gaa ttt gtc ctc ctg gga ttc    48
196     Met Arg Pro Asn Asn Ser Ile Thr Glu Phe Val Leu Leu Gly Phe
```

RAW SEQUENCE LISTING   DATE: 02/04/2003
PATENT APPLICATION: **US/10/041,615**   TIME: 13:52:26

Input Set : **A:\cura_533_us_list.txt**
Output Set: **N:\CRF4\02042003\J041615.raw**

```
197        1                5                  10                    15
199 tct cag gat cct ggt atg caa aaa gaa tta ttt gtc atg ttt tta ttc     96
200 Ser Gln Asp Pro Gly Met Gln Lys Glu Leu Phe Val Met Phe Leu Phe
201              20                   25                   30
203 aca tac gtt gtg act gtg ttg ggg aac cag ctc att gtg gtg act atc    144
204 Thr Tyr Val Val Thr Val Leu Gly Asn Gln Leu Ile Val Val Thr Ile
205              35                   40                   45
207 att gcc agc cct tcc ttg ggc tcc cca atg tac ttc ttc ctt gcc tgc    192
208 Ile Ala Ser Pro Ser Leu Gly Ser Pro Met Tyr Phe Phe Leu Ala Cys
209              50                   55                   60
211 ctg tca ttt ata gat gct gca tat ttc act gtc att tct ccc aaa ttg    240
212 Leu Ser Phe Ile Asp Ala Ala Tyr Phe Thr Val Ile Ser Pro Lys Leu
213         65                   70                   75
215 att gtg gac tta ctc tgt gat aaa aag act att tcc ttc caa acg ttc    288
216 Ile Val Asp Leu Leu Cys Asp Lys Lys Thr Ile Ser Phe Gln Thr Phe
217  80                   85                   90                   95
219 atg ggc caa cta ttt ata gac cac ttc ttt ggt ggt gca gag gcc ttc    336
220 Met Gly Gln Leu Phe Ile Asp His Phe Phe Gly Gly Ala Glu Ala Phe
221              100                  105                  110
223 ctt ctg gtg gtg atg gcc tat gat cgc tat gtt gcc atc tgt aag aca    384
224 Leu Leu Val Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Thr
225              115                  120                  125
227 ttg cac tat ttg acc atc atg act cga cag gtt tgt atc ctt gca ttg    432
228 Leu His Tyr Leu Thr Ile Met Thr Arg Gln Val Cys Ile Leu Ala Leu
229         130                  135                  140
231 ctg gtg gct gcg aca ggc ggt ttt gtg cat tct gtg ttt caa att gtt    480
232 Leu Val Ala Ala Thr Gly Gly Phe Val His Ser Val Phe Gln Ile Val
233         145                  150                  155
235 gtt gtg tac agt ctc cct ttc tgt ggc gcc aat gtc att gat cat ttc    528
236 Val Val Tyr Ser Leu Pro Phe Cys Gly Ala Asn Val Ile Asp His Phe
237 160                  165                  170                 175
239 agt tgt gac atg tat cca tta ttg gaa ctg gca tgt act gac acc tac    576
240 Ser Cys Asp Met Tyr Pro Leu Leu Glu Leu Ala Cys Thr Asp Thr Tyr
241              180                  185                  190
243 ttt ata ggc ctc act gtt gtt ttc agt ggt gga gca ctc tgt atg gtc    624
244 Phe Ile Gly Leu Thr Val Val Phe Ser Gly Gly Ala Leu Cys Met Val
245              195                  200                  205
247 atc ttc acc ctt cta ata att tcc tat agg gtc atc cta aac tcc ctt    672
248 Ile Phe Thr Leu Leu Ile Ile Ser Tyr Arg Val Ile Leu Asn Ser Leu
249              210                  215                  220
251 aaa act tac act cag gaa ggg agg cat aaa gcc ctg tct acc tgc agc    720
252 Lys Thr Tyr Thr Gln Glu Gly Arg His Lys Ala Leu Ser Thr Cys Ser
253         225                  230                  235
255 tcc cac atc act gtg att gtt ctc ttt tta ttc cct gta ttt tca tat    768
256 Ser His Ile Thr Val Ile Val Leu Phe Leu Phe Pro Val Phe Ser Tyr
257 240                  245                  250                  255
259 gtg aga cct gtt tca aac ttt tct att gac aca ttc atg act gtc ttt    816
260 Val Arg Pro Val Ser Asn Phe Ser Ile Asp Thr Phe Met Thr Val Phe
261              260                  265                  270
```

```
263 tat aca gtt atc aca ccc aag ttg aat cct tta ata tac act ttc aga    864
264 Tyr Thr Val Ile Thr Pro Lys Leu Asn Pro Leu Ile Tyr Thr Phe Arg
265             275             280                 285
267 aat tca gag atg aga aat gtt ata gaa aaa ctc ttg gtg aaa aag gta    912
268 Asn Ser Glu Met Arg Asn Val Ile Glu Lys Leu Leu Val Lys Lys Val
269         290             295             300
271 act ata ttt aga ata aca ggg tcc atc ctc atg tag                    948
272 Thr Ile Phe Arg Ile Thr Gly Ser Ile Leu Met
273     305                 310
275 <210> SEQ ID NO: 4
276 <211> LENGTH: 314
277 <212> TYPE: PRT
278 <213> ORGANISM: Homo sapiens
280 <400> SEQUENCE: 4
281 Met Arg Pro Asn Asn Ser Ile Thr Glu Phe Val Leu Leu Gly Phe Ser
282   1                 5                 10                  15
284 Gln Asp Pro Gly Met Gln Lys Glu Leu Phe Val Met Phe Leu Phe Thr
285             20              25              30
287 Tyr Val Val Thr Val Leu Gly Asn Gln Leu Ile Val Val Thr Ile Ile
288         35              40              45
290 Ala Ser Pro Ser Leu Gly Ser Pro Met Tyr Phe Phe Leu Ala Cys Leu
291     50              55                  60
293 Ser Phe Ile Asp Ala Ala Tyr Phe Thr Val Ile Ser Pro Lys Leu Ile
294 65              70                  75                  80
296 Val Asp Leu Leu Cys Asp Lys Lys Thr Ile Ser Phe Gln Thr Phe Met
297             85                  90                  95
299 Gly Gln Leu Phe Ile Asp His Phe Phe Gly Gly Ala Glu Ala Phe Leu
300             100             105             110
302 Leu Val Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Thr Leu
303         115             120             125
305 His Tyr Leu Thr Ile Met Thr Arg Gln Val Cys Ile Leu Ala Leu Leu
306     130             135             140
308 Val Ala Ala Thr Gly Gly Phe Val His Ser Val Phe Gln Ile Val Val
309 145             150             155             160
311 Val Tyr Ser Leu Pro Phe Cys Gly Ala Asn Val Ile Asp His Phe Ser
312             165             170             175
314 Cys Asp Met Tyr Pro Leu Leu Glu Leu Ala Cys Thr Asp Thr Tyr Phe
315             180             185             190
317 Ile Gly Leu Thr Val Val Phe Ser Gly Gly Ala Leu Cys Met Val Ile
318         195             200             205
320 Phe Thr Leu Leu Ile Ile Ser Tyr Arg Val Ile Leu Asn Ser Leu Lys
321     210             215             220
323 Thr Tyr Thr Gln Glu Gly Arg His Lys Ala Leu Ser Thr Cys Ser Ser
324 225             230             235             240
326 His Ile Thr Val Ile Val Leu Phe Leu Phe Pro Val Phe Ser Tyr Val
327             245             250             255
329 Arg Pro Val Ser Asn Phe Ser Ile Asp Thr Phe Met Thr Val Phe Tyr
330             260             265             270
332 Thr Val Ile Thr Pro Lys Leu Asn Pro Leu Ile Tyr Thr Phe Arg Asn
```

```
RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 02/04/2003
PATENT APPLICATION:  US/10/041,615      TIME: 13:52:27

Input Set : A:\cura_533_us_list.txt
Output Set: N:\CRF4\02042003\J041615.raw
```

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:51; Xaa Pos. 276
Seq#:98; Xaa Pos. 286
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VERIFICATION SUMMARY   DATE: 02/04/2003
·PATENT APPLICATION: **US/10/041,615**   TIME: 13:52:27

Input Set : **A:\cura_533_us_list.txt**
Output Set: **N:\CRF4\02042003\J041615.raw**

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:4011 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:272
L:7241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:272